

American Vegetable Grower

DECEMBER • 1961

25 CENTS

VARIETIES

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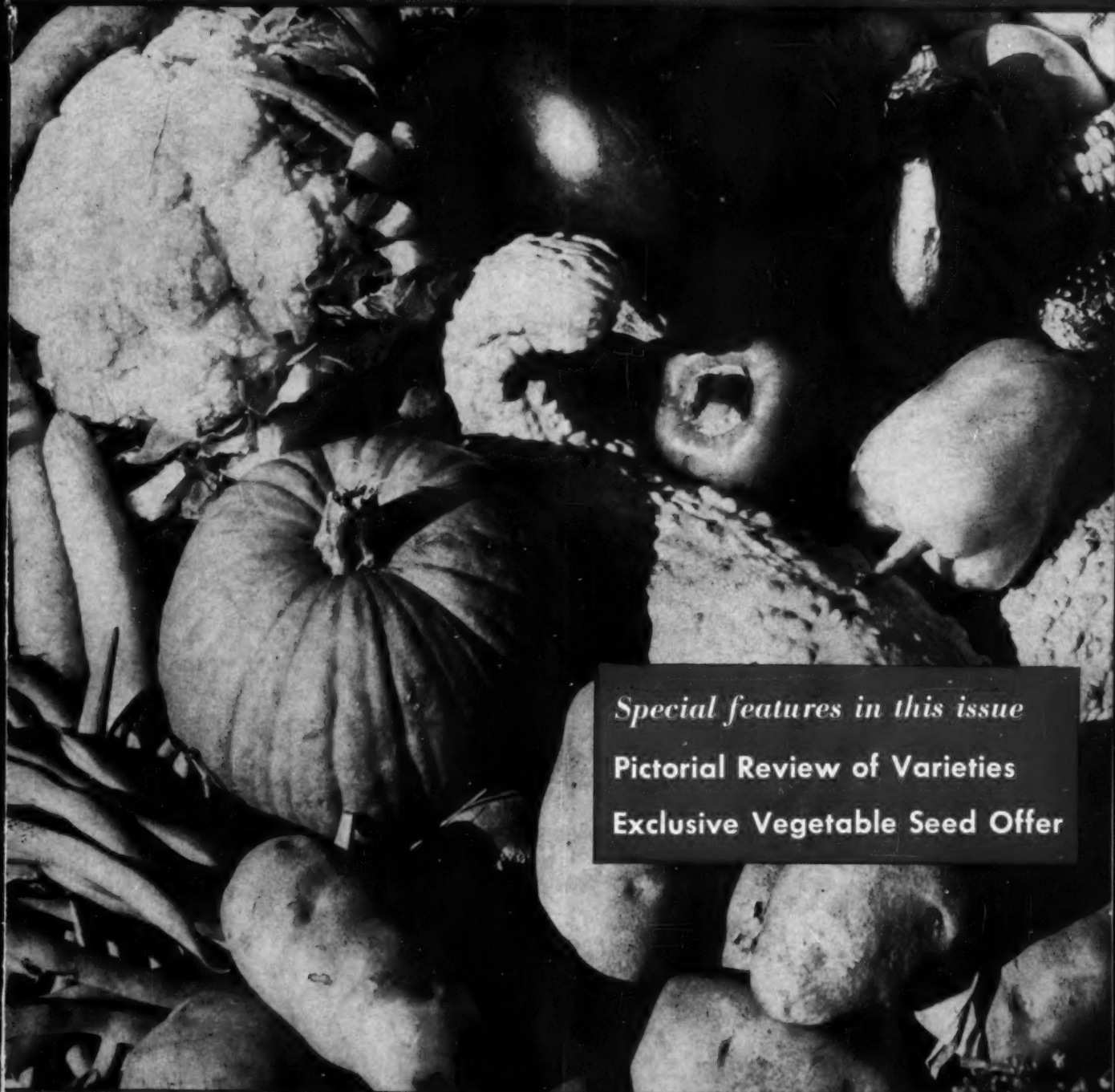
CULTURE

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PACKING

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MARKETING



Special features in this issue

Pictorial Review of Varieties

Exclusive Vegetable Seed Offer

The Puzzling Behavior of Some Vegetable Varieties

WHAT'S IN A NAME?



Old Ironsides

Is a revered name in
the annals of shipbuilding

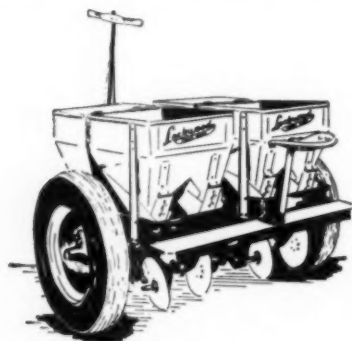
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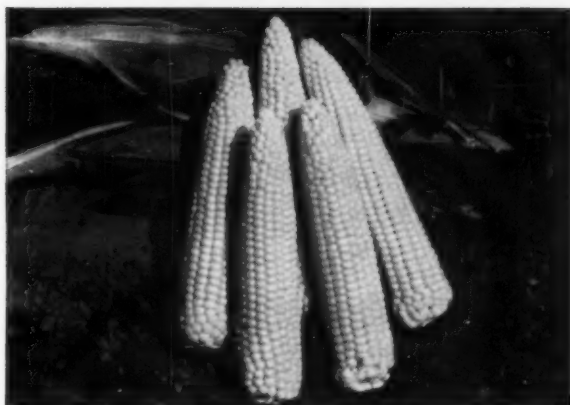
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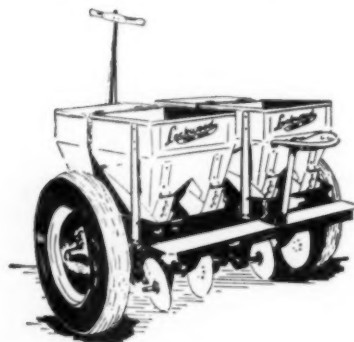
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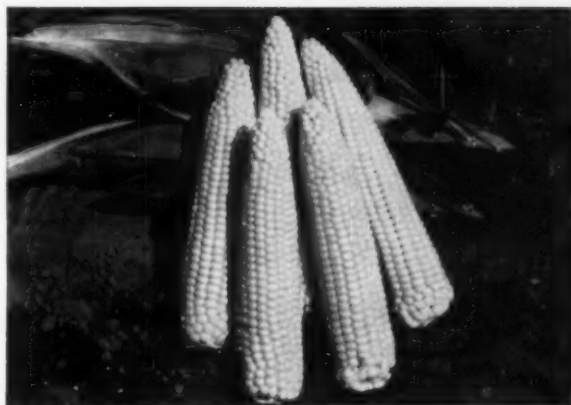
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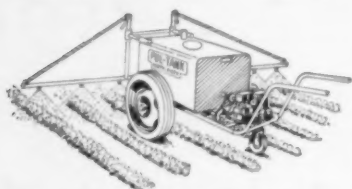
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American Vegetable Grower

Reg. U.S. Pat. Off.
Commercial Vegetable Grower
Market Growers Journal

VOL. 9 No. 12

DECEMBER, 1961



Cover photograph showing vegetable display by A. Devaney, Inc.

FEATURES

- The Puzzling Behavior Of Some Vegetable Varieties** 9
- Variety Review—A Five Page Pictorial Feature of New and Promising Vegetable Varieties** 10
- Special Seed Offer** 15
- NPC Investigates National Marketing Order** . . 18
By George Peter

Beans	Fragile	22
Greenhouse Crops	A Careful Planner	32
	<i>By Fred K. Buscher</i>	
Packaging & Marketing	Fresh, Crisp, and Firm!	30
	Celery Marketing Order	31
Potatoes	Truly "Superior"	22
Squash	The Barrier Is Broken	25
Tomatoes	Seeds In, Weeds Out	19
	Plastic or Glass	19

DEPARTMENTS

Letters to the Editor	6	State News	28
You Be the Expert	22	Calendar of Coming Events	31
As It Looks To Me	24	New for You	34
Markets... Trends and Forecasts	27	Editorials	38

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The new "L" strain of Yolo Wonder is definitely improved, giving a heavier set in the crown, of larger deeper No. 1 fruits.

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Jade Cross Brussels Sprouts

Heavier in yield and earlier than Long Island Improved. Plant 22 inches tall, uniform with hybrid vigor.

1/4 oz. \$1.25, 1/2 oz. \$2.00, oz. \$3.75.

Send for Complete Catalog

Vegetable and Flower Seeds, Spray Materials, the Jack Pot Peat Pots, Polyethylene rolls and many other aids to commercial growers.

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Brings Top Market for quality and appearance. Pick Harvester before more than 10% of the pods have reached full size for top quality. It is an exceptionally large yielder even at that stage. Erect plants carry pods well up and are tolerant to rust and root rot.

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A valuable new strain developed in Ohio. It is sweeter and milder than Hungarian Rainbow Wax, with thicker walls. Fruits are rich yellow turning to red at maturity.

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***SEIDL BALLHEAD** — Small, solid heads weighing about 3 to 4 lbs. Stems short with round, uniform heads. Valuable for crating and local sales where small solid heads are in demand. This splendid cabbage has made a hit with market gardeners. It is earlier than Oregon Ballhead. This fine cabbage first catalogued by us, increases in popularity each year. We offer a fine selection from our own strain. Postpaid. Pkt. 20c; ½ oz. 65c; oz. \$1.00; ¼ lb. \$2.50; lb. \$6.00.

EARLY WONDER No. 1 (New)—An extremely early Golden Acre. Small, perfect heads weighing 2 to 2½ lbs., perfectly fitted for the average family. This is really the earliest, most perfect, most uniform Golden Acre. The size makes it attractive and this is backed by its splendid quality. Popular with market gardeners. Pkt. 20c; ½ oz. 65c; oz. \$1.00; ¼ lb. \$2.50; lb. \$6.00.

WRITE FOR SPRING CATALOG

GILL BROS. Seed Co.

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*Geoponics—the art or science of cultivating the earth.

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LETTERS TO THE EDITOR

Constructive Thinking Welcome!

Dear Editor:

Thank you very much for carrying Dr. H. C. Mohr's article, *The Vegetable Areas of America—Texas*. I read that article with great interest and feel that it was something which will be of interest to many people in this part of the country.

Many of our agricultural areas in this state are in something of a transition, and it seems to me to be a most constructive thing to point out the possibilities in the production of vegetables in such areas. For that reason I feel that your magazine has done a real service to agricultural people in this section of the country in carrying this article. Thank you very much.

College Station, Tex.

G. M. Watkins

Director of Agricultural Instruction

The Agricultural and Mechanical

College of Texas

Texas, where most varieties have done their due and died.

Now Mr. Editor, a Denver seed house says cabbage growers out there are adapting the direct seeding of cabbage with great success, using early maturing varieties of course, and it saves them a lot of extra work. The seed are sown the same as tomato seed at Albion, then thinned out. A better stand is had and compact short stemmed varieties are used. The Denver climatic conditions are colder, much colder, and the altitude over 6000 feet. I hope this encourages commercial growers to give this idea a tryout for 1962.

H. A. Hawk

H. A. Hawk's Experimental Gardens

Cabbage growers interested in more information concerning direct seeding, should refer to AMERICAN VEGETABLE GROWER, March, 1961, page 20. This item supplies facts and figures on direct seeding of cabbage.

Glad We Could Help!

Dear Editor:

We received our AMERICAN VEGETABLE GROWER for April, 1961 a few days before May. We had transplanted a lot of hothouse grown tomato plants which we purchased at Farmers Market in Oklahoma City about the first of May. It was a cool, cloudy day and late p.m., so we didn't water them at the time, intending to do this early next morning.

However, it rained a good shower over night, and stayed cloudy all day. The next day—third day after setting the plants, the weather turned fair and the sun came out causing a summer-time temperature of 90°. We never dreamed that it was cooking our tomato plants; but that's exactly what happened.

Results were almost a total loss. Then, having read in our AMERICAN VEGETABLE GROWER about those commercial tomato growers—Stanley Kast, et al, Albion, N.Y.—going to seed direct in the field, we jumped to the conclusion, if commercial growers could succeed way up there in New York, we had plenty of time to do likewise if we weren't going to start planting until May 15. We immediately ordered seed of Red Cloud, Porter's Pride, and a new variety developed by the Texas Experiment Station in co-operation with USDA called "HOTSET."

On May 12, we replanted in hills about 2 inches apart in 4 inch rows. High wind and hot sun had dried the soil so that surface soil was plenty dry. So, we made shallow hills and planted several seed in each hill. The wind was quite strong on that particular day, so we watered the seed down as we planted. This kept the wind from scattering the seed, but we covered them as soon as water had soaked down, and pressed the soil just lightly.

The weather had begun to be more spring-like; that is warm, not hot, and in just a few days the plants were up. This was our first venture at direct seeding, but in all our years of vegetable growing, we never saw tomato plants grow so fast. Other matters taking up much of our time prevented us from getting all the crop thinned out, but even at that we have never grown a crop of tomatoes like this one. The vines just fell over on the ground, unable to hold the clusters of fruit up. By August 15 we were gathering nice ripe tomatoes.

These same vines are still green (Nov. 6), and have many green fruit on them. A special characteristic of "HOTSET" is that it bears a late crop as well as an early crop, thus prolonging the tomato season especially in east

Too Many Zeros!

Dear Editor:

Just how stupid do you think your readers are? On page 24 in your November issue you have an article about Arnold Liepe raising tomatoes. You state he sets 35,000 plants on each acre 18 inches by 6 feet. With that spacing he could only get 4840 plants on an acre or 1/7 of what you said he sets. There are only 43,560 square feet in an acre.

I have raised staked tomatoes 39 years and 3500 plants per acre would have sounded better to me.

Parsons, Kans.

Raymond Hunter

We'd like to say that Arnold Liepe is really "concentrating" his tomato plantings. But we will have to admit that an extra zero was included in the figure and that the number of plants he sets per acre is 3500.—Ed.

Get to Know Tax Assessor

Dear Editor:

The same basic tax problem exists in all those states which "enjoy" urbanization of the rural areas. Here in Florida, we are affected by this same problem in certain areas.

For the past three sessions of the State Legislature, agricultural groups have made an effort to obtain relief on this subject. Due to the Constitution of the State of Florida, there is a limit to the extent statutory authority may be used to establish class taxes.

Regardless of the Constitution and statutes, the human element is involved. Tax manuals and other aids depend upon interpretation and decisions of the individual and no true uniformity is possible. There is a direct relationship in the tax assessors' actions based on the composition or breakdown of the voters who elect them.

Of course, in the rural areas the tax assessor remains sympathetic to agriculture and is greatly influenced in current use aspects in his appraisals, while in the urbanized areas, current use is one factor only and greater emphasis is placed upon potential use which means exorbitant evaluation from the standpoint of agriculture, since lands no doubt are suitable for commercial or residential expansion.

Orlando, Fla.

George M. Talbott, Mgr.

Production & Marketing Division
Florida Fruit & Vegetable Association

AMERICAN VEGETABLE GROWER



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Telescope boxes for packing stalks are stored flat and assembled as needed with a Bostitch EHA Stapler. Hearts are placed in regular slotted cartons, which have been

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Community Produce finds this gives them fast, economical, convenient packaging with a minimum of storage space.

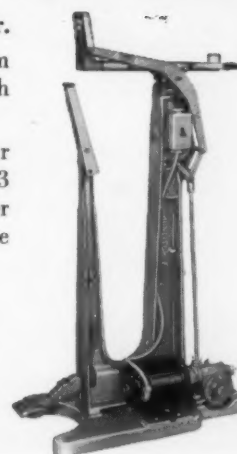
For stapling information call your Bostitch Economy Man—one of 350 in 123 U. S. and Canadian cities. He's listed under "Bostitch" in your phone book. Or write Bostitch at the address shown below.

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DECEMBER, 1961



Corneli Introduces Keystone Resistant Giant Strain 3 The New Bell Pepper That Is Better Than The Best



Greater Seedling Vigor — Earlier Maturity — Heavier Production

Shortly after its introduction, the original basic Keystone Resistant Giant Pepper swept the country—took the lead in important pepper growing areas. Now, new Strain 3 has been produced—a pure line developed from an extremely vigorous plant selected on the Corneli breeding farm in 1956. This new strain is already tested and proven superior to others in its class—ranked first in the important pepper trials at Faison, North Carolina in 1960.

Strain 3 retains these basic characteristics which won the approval of growers everywhere.

- Mosaic Resistant
- Heavy Foliage Which Protects Pods From The Sun
- Strong, Upright Stems Which Carry Heavy Loads Of Fruit

**ASK YOUR DEALER TODAY FOR STRAIN 3—THE NEW KEYSTONE BELL PEPPER
JUDGED BETTER THAN THE BEST.**

CORNELI SEED COMPANY
BREEDERS AND GROWERS • ST. LOUIS 2, MO.





Whiptail in cauliflower. A slight change in diet would correct this malnutrition condition.

At left—Some tomato varieties dislike cold nights so their flowers fail to develop into fruit.

The Puzzling Behavior of Some Vegetable Varieties

Like their human counterparts, some varieties need a special diet—or environment may make the difference between a good or poor crop

PLANTS, like human beings, are fussy. They have different appetites and respond differently to their environment. Some of them are "night people"; some "day people." Some like it hot; some cold. They are often "finicky" eaters.

For example, cauliflower. Experts all over the world were puzzled by a malnutrition problem in cauliflower called whiptail. On very acid soils this crop developed misshapen leaves and malformed heads. Growers knew that lime prevented this trouble but didn't know why. New Zealand scientists then discovered that a little known element, molybdenum, was being tied up by acid soils and that a "pinch" did the same trick as heavy applications of lime. As little as 1 pound of ammonium molybdate per acre has been sufficient to grow excellent cauliflower on very sour soils.

Cauliflower is also fussy about boron. Some varieties are more efficient users of this element than others. The variety Snowball A uses boron more effectively than Snowball X.

Beets and spinach are also finicky about boron. Beet varieties with small root systems, such as Detroit Short Top, are quite sensitive to a deficiency of boron in some areas. This deficiency is indicated by a brown discoloration of the interior of the beet (black heart disease). Varieties with more extensive root systems, such as Detroit Perfected, apparently are able to obtain adequate quantities of boron. Perfected Detroit Dark Red is another efficient user.

An excess of boron "upsets" spinach. When this is present, the plant becomes stunted and yellow.

The classic example of a fussy eater is celery. Eastern growers noticed that

the variety Utah 10B, a favorite in the West, usually developed unsightly yellowed leaves while other varieties in the same field were a normal green. This variety difference also puzzled plant breeders.

Then along came a Cornell graduate student, Dan Pope, who after preliminary greenhouse experiments, sprayed the plants with epsom salts. The results were striking. The dark green color of the sprayed leaves indicated that the plants were magnesium starved.

Pope found that Utah 10B could get along fine if it had plenty of magnesium on hand. When the supply ran short, however, this variety turned yellow while others remained green.

This condition in celery can be somewhat overcome by magnesium sprays. Certain varieties, such as FM D5, are quite efficient in using soil magnesium and will produce healthy plants under conditions when plants of Utah 10B are severely affected.

A condition called Brown Check may occur in celery when planted in soil high in potash but with minimum levels

(Continued on page 33)

VARIETY REVIEW

New and recent arrivals on the vegetable variety scene. Want to try some of them on a small scale? Turn to American Vegetable Grower's exclusive seed offer which follows this pictorial review



An improved sulfur-resistant line of muskmelon, SR 1463-A, is offered by Dessert Seed. Excellent heavy netting makes it a good shipping variety. The fruit has no rib, suture, or stripe. It averages 5½x6 inches in size.



Broccoli C-60 produces a medium-large, vigorous plant with dark green foliage. Heads are large, compact, and short branched with small uniform buds. C-60 is very productive. It is available from W. V. Clow Seed Co.



McCASLAN 42 bean is long, straight, productive; free of paper pods common in other strains. Market and shipping. From Corneli Seed Co.



RESEARCHER HYBRID sweet corn has 8 inch ears, averaging 12 to 16 rows of kernels. Freezing and fresh market variety. Available from SRS, Inc.



Burpee's EARLY BEAUTY HYBRID F₁ matures in 62 days. Fruits are shiny, dark purple, and of medium size. Plants produce throughout long season.



Asgrow's WHITE SWEET SPANISH 959 combines the large size of the Utah strain and the small neck of the Idaho strain. Also from Letherman's.

YOU CAN GET ADDITIONAL INFORMATION ABOUT THE VARIETIES ILLUSTRATED IN THIS FIVE-PAGE PICTORIAL SECTION FROM THE FOLLOWING SEEDHOUSES OR THEIR DISTRIBUTORS

Place your seed orders early to insure getting a supply of these leading varieties

Alpha Seeds, Box 1042, Lompoc, Calif.
American Seedless-Watermelon Seed Corporation, Goshen, Ind.
Associated Seed Growers, Inc. (Asgrow), 205 Church St., New Haven 2, Conn.
Burgess Seed & Plant Co., Galesburg, Mich.
W. Atlee Burpee Co., Hunting Park Ave. at 18th St., Philadelphia 32, Pa.
Corneli Seed Company, 101 Chouteau Ave., St. Louis 2, Mo.
W. V. Clow Seed Co., 1401 Abbott St., Salinas, Calif.
Dessert Seed Company, Inc., P.O. Box 181, El Centro, Calif.
Frederick W. Eberle, 79-81 Franklin St., Albany, N.Y.
Farmer Seed & Nursery Co., Faribault, Minn.
Ferry-Morse Seed Co., Box 100, Mountain View, Calif.
Gill Bros. Seed Co., Montaville Station, Portland 16, Ore.
Glecklers Seedmen, Metamora, Ohio.
Joseph Harris Co., Inc., 78 Moreton Farm, Rochester 11, N.Y.

The Charles C. Hart Seed Co., Main & Hart Sts., Wethersville 9, Conn.
The Holmes Seed Company, 1017 9th St., S.W., Canton, Ohio.
Letherman Seed Co., 501 McKinley Ave. N.W., Canton 2, Ohio.
Northrup, King & Co., 1500 N.E. Jackson St., Minneapolis 13, Minn.
Peto Seed Co., Saticoy, Calif. (Inquiries will be referred to distributors.)
Robson Quality Seeds, Inc., Box 612, Hall, N.Y.
Walter S. Schell, Inc., 10th & Market Sts., Harrisburg, Pa.
Seed Research Specialists, Inc., P.O. Box 3091, Modesto, Calif.
Standard Seed Company, 931 West 8th St., Kansas City 1, Mo.
George Tait & Sons, 900 Tidewater Drive, Norfolk 4, Va.
Otis S. Twilley Seed Co., Salisbury 2, Md.
Willhite, Weatherford, Texas.



Robson's **SENECA WAMPUM 61** is a new, high-yielding hybrid with resistance to helminthosporium leaf blight. Matures in about 89 days.



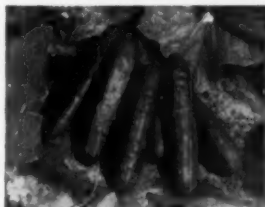
BURPEE HYBRID weighs 4 to 4½ pounds at maturity. Fruits are deep orange in color. Flesh is thick, firm, juicy, and of a delicious flavor.



JIM DANDY F₁ hybrid tomato, developed by Ferry-Morse, is high yielding with extra large fruits. It is available from Otis S. Twilley.



BURPEE HYBRID CHINESE CABBAGE forms large, cylindrical heads 13 inches high and 8 inches in diameter. Matures in 75 days.



Peto's **SATICOY HYBRID** is a true F₁ slicer of finest market type. Slim 8-inch fruit abundant, on disease-resistant vines. From Harris Seeds.



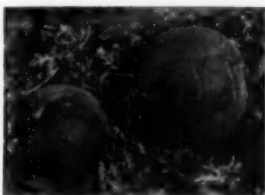
Asgrow's **BADGER BALL HEAD 14, Y-R**, produces uniform, firm, slightly flattened globe heads 6½ inches in diameter. Also from Letherman's.



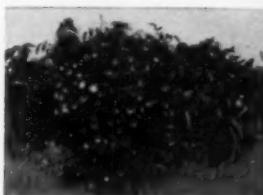
Asgrow's **ATLANTIC** is dwarf type for concentrated yields. Very uniform in maturing large, compact, firm heads. Also from Letherman's.



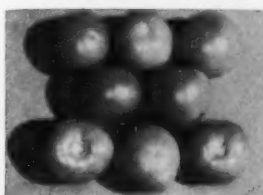
NORTHERN BELLE hybrid, in Carmelcross season; it has large ears and narrow kernels modern markets require. From Harris Seeds.



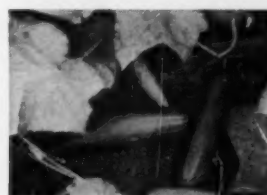
SUNNY BOY watermelon is an early, high sugar content, medium size melon (globular). Resists sunburn. Dessert Seed Company, Inc.



Burgess developed **EARLY SALAD** to meet the demand for a salad tomato that can be served whole. Fruit of this hybrid is sweet, firm.



Tomato #ES24, released by Eastern States Co-operative Exchange, is good for canning, mechanical harvesting. Available from SRS, Inc.



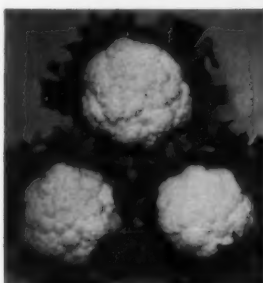
Burpee's **6274 BURPEEANA HYBRID F₁** is vigorous, productive, and early maturing. Fruits are dark green, and are 8 to 9 inches long.



Asgrow's **EMPRESS** produces long, slender roots of excellent quality. Color is bright orange. Matures in 77 days. Also from Letherman's.



EARLY WONDER STAYSGREEN is a very early, sweet, bunching variety, matures in 52 days. Good interior color and quality. Northrup, King.



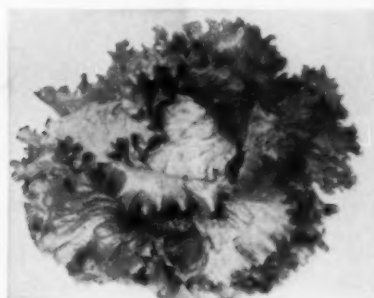
SURE CROP cauliflower has outstanding ability to withstand adverse weather conditions. Large solid heads. From Otis S. Twilley.



Asgrow's **DELMAR** is large, uniform Utah type of excellent green color. Has good resistance to pithiness. Also from Letherman's.



Dark, shiny-green **VATES** collard is large, well rounded, and intermediate in height. Cold tolerance is good in mature plant. Geo. Tait & Sons.



OSWEGO is a slow bolting variety. Heads are firm even in immature stage. Good performance under high summer temperatures. Holmes Seed Co.



SPARTAN DAWN pickle, a Michigan AES development, tends to produce only female blossoms, resulting in extra-early yields. Harris Seeds.

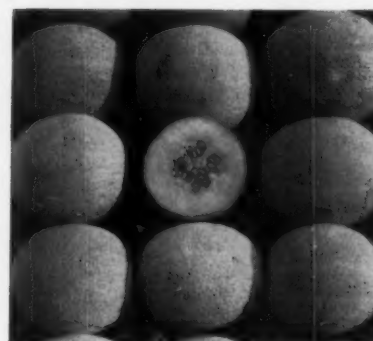
PICTORIAL



MANAPAL tomato is widely adapted and productive under adverse conditions. Resistant to diseases. From Cornell, Asgro, Letherman, Twilley.



HYBRID ZUCCO, developed by Ferry-Morse, matures in 56 days. Fruits are glossy, dark green with lighter green flecking. High yielding squash.



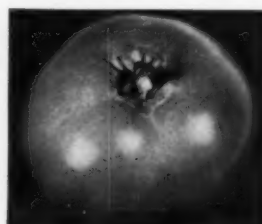
Asgrow's **NUMBER 45 SJ** matures at about 2½ pounds. Has thick, firm, sweet, salmon-colored flesh, with heavy netting. Also from Letherman's.



SPARTAN EARLY, a Michigan development, is uniform heading, matures 10 days ahead of most other varieties. From Letherman's.



Asgrow's **COZELLA**, a heavy-yielding hybrid, produces attractive, dark green fruits with light stripes. Matures 41 days. Also, Letherman's.



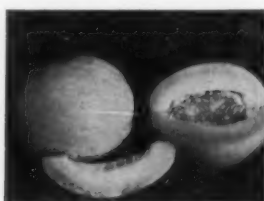
OHIO W-R RED JUBILEE is high yielding, immune to fusarium wilt, and highly resistant to gray leaf spot. Available from Letherman's.



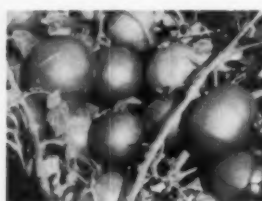
Developed by SRS, **BUTTERNUT #77** squash has a thick, solid, meaty neck. It matures in 96 days. Prebloom rogued. From SRS, Inc.



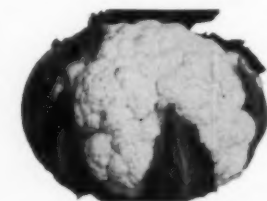
Asgrow's **GRANDEE**, developed from USDA inbreds, is a jumbo-bulbed, main-crop variety for Midwest and Northeast. Letherman's.



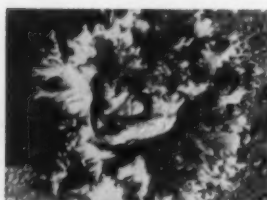
Farmer Seed & Nursery offers **SUN-GOLD** casaba melon which ripens in 85 days. This melon was developed by Univ. of New Hampshire.



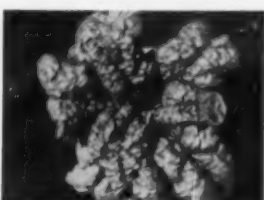
Developed by Ferry-Morse, **FOREMOST F2** hybrid tomato yields very large globe fruit. Comparable to F1 varieties. From Otis S. Twilley.



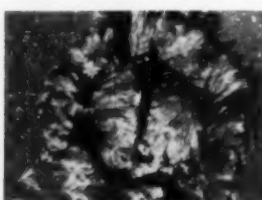
MT. HOOD cauliflower heads are large, heavy, and firm. This variety performs well under adverse conditions. Available from Holmes Seed.



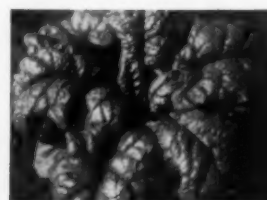
Asgrow's **GREAT LAKES 13** produces heavy, robust heads of dark green color. Primarily for Southwest. Also from Letherman's.



Suitable for machine harvesting, **EARLY HYBRID 11** is blue mold and mosaic resistant. Excellent uniformity. From Dessert Seed Co., Inc.



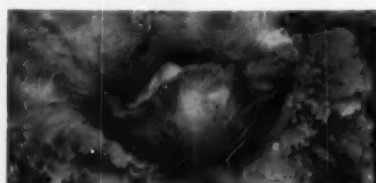
Asgrow's **CARAVAN** is an early summer, late fall variety of medium large size, good color, and uniform in appearance. Also, Letherman's.



Asgrow's **PACKER** is fast growing, heavy yielding F1 hybrid with moderately savoyed leaves of dark green color. Also from Letherman's.



Gill's **SPECIAL NANTES** has bright orange roots 6 to 8 inches long, uniform in size and shape. Very small core. Variety is well suited for bunching.



SRS J STRAIN lettuce is an extremely heavy yielder with good size, very uniform, compact, well folded heads. It's an excellent shipper. SRS, Inc.

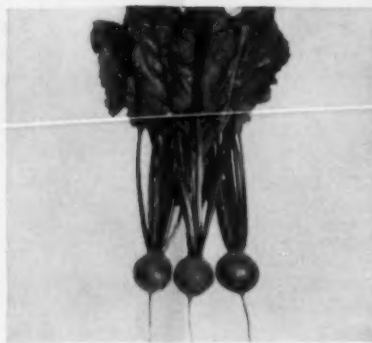


GILL'S GOLDEN PIPPIN is a small squash, with mild, sweet, fine-textured meat. Ripens early and produces heavy yields.

REVIEW ..



Highly productive F₁ hybrid varieties developed by Alpha Seeds and offered by Clow include ALPHA 20x, 440, 536, and Pearson A-1 Improved.



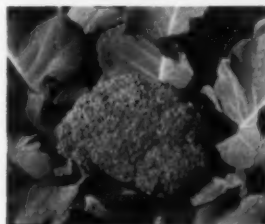
DETROIT DARK RED CANNER STRAIN, a Rohnert selection, produces beets that are round with minimum waste in the trimming. From SRS, Inc.



SUNGLOW hybrid sweet corn is resistant to frost and cold. Extra early maturity (62 days). Good for the early markets. From Burgess Seed & Plant.



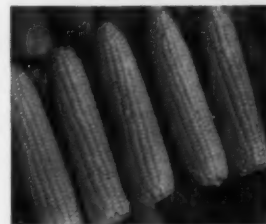
ROUMANIAN SWEET, developed in Ohio, is 4 to 5 inches long, 2 to 3 inches across shoulder. Turns red when mature. From Letherman's.



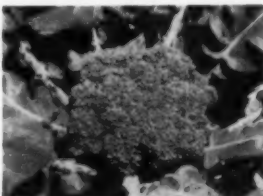
Asgrow's COASTAL has large, well-rounded heads with tight buds and attractive color. Developed for Far West area. Also from Letherman's.



Gleckler's #506 DWARF BUSH is adapted for machine harvesting, resists spoilage, cracking, and anthracnose. Yields 20 tons an acre.



Asgrow's MERIT is a midseason (87 days) yellow hybrid with good resistance to bacterial wilt and drought. Also from Letherman's.



Asgrow's MEDIUM LATE 423 has uniform heads of good texture, color. Well suited for California and Southwest. Also from Letherman's.



MARION tomato is resistant to fusarium wilt and gray leaf spot; tolerant to late blight. Productive Rutgers type. Corneli Seed Co.



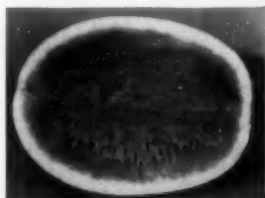
GOLD EAGLE, a new larger eared companion to Gold Cup; small, tight-packed kernels. Early-midseason maturity. From Harris Seed Co.



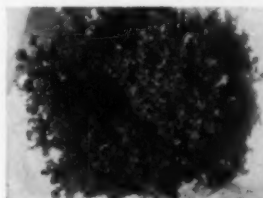
Farmer Seed's FARIBO HYBRID "R," developed in Minnesota, has smooth 4- to 5-pound fruits of orange color. Matures in 90 days.



ECLIPSE HYBRID combines productivity and quality; 8-inch ears have 14 rows of tender kernels. Available from Holmes Seed Co.



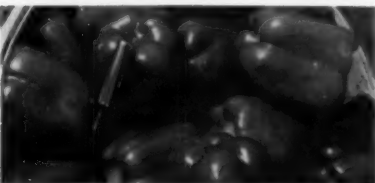
TRI X 313 HYBRID, from American Seedless, weighs 20 to 24 pounds at maturity. Resists anthracnose, and tolerates wilt accumulations.



Eberle's PRESIDENT is very hardy, tightly curled variety that will withstand adverse fall weather. Dense full heart blanches quite easily.

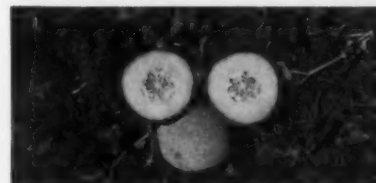


Willhite's SHIPPER is prolific, wilt-resistant variety with dark green rind and deep red flesh. Weighs 30 to about 35 pounds at maturity.



Tobacco mosaic resistant KEYSTONE RESISTANT GIANT STRAIN 3 pepper has tall bushes with excellent cover. Available from Corneli Seed Co.

Special Seed Offer on page 15 gives you an opportunity to try most of the varieties shown in this pictorial review. Trial plantings will help you determine their value in your area.



SWEET GLOBE, an early maturing muskmelon, is resistant to powdery mildew and tolerant to crown blight. Offered by Dessert Seed Company, Inc.

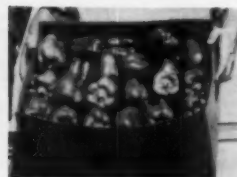


High yielding, large, disease resistant, **MARKET PRIDE F₂** hybrid cantaloupe holds quality after being picked. From Otis S. Twilley.

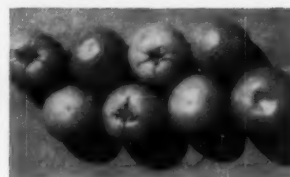


Standard Seed's **MOCROSS SUPREME #4** produces heavy crop throughout season. Resistant to fusarium wilt. Matures 70 to 75 days.

TRY THESE



A broad, vigorous plant that produces a heavy yield, **PACIFIC BELL** pepper is tobacco mosaic resistant. From SRS, Inc.



Especially adapted to southern growing conditions, **MEXICAN AAA** tomato has unusual shipping ability because of its firmness. Available from SRS, Inc.



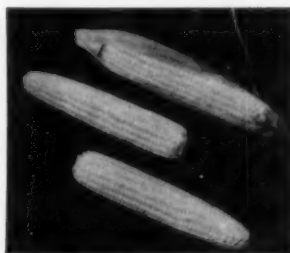
CARIBE GORDO PEPPER, a release from SRS, is favored to replace standard **Floral Gem** types in southern areas. Offered by SRS, Inc.



HONEY GOLD hybrid corn, from Holmes Seed Co., has the much desired small narrow kernels, with 14 to 16 rows, on 7½- to 8-inch ears.



PAUL BUNYAN, a 10- to 14-ounce tomato which ripens with Earliana. Developed at Minnesota. Farmer Seed & Nursery.



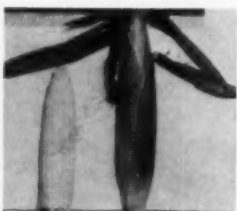
NK 1304 sweet corn has attractive yellow kernels and is very uniform. It is a good shipper. Matures in 85 days. Available from Northrup, King & Co.



Asgrow's **DUET** produces ears uniformly filled with straight rows of bright yellow kernels. Matures in 83 days. Also from Letherman's.



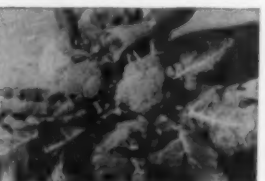
DAINTY-GOLD HYBRID is resistant to corn ear worm; an extremely high yielder for the medium-early type. A development of SRS, Inc.



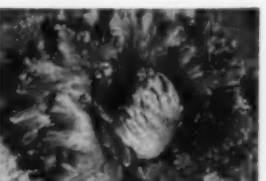
NK 75 sweet corn, a productive golden hybrid, for processing in northern short season areas. A Northrup, King development.



IMPROVED SWEET MEAT, introduced by Gill, has exceptionally sweet, fine-grained meat. Plants are vigorous and disease free. A very long keeper.



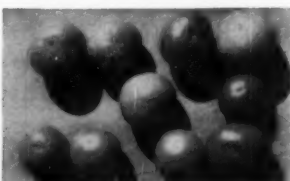
Uniform in growth, the SRS strain of **SPARTAN EARLY** broccoli has a many sided head with tender buds. Excellent variety for freezing.



Asgrow's **FORTY-NINER** combines good head size, quality, and resistance to big vein and rib breakdown. Also from Letherman's.



MARKET GOLD hybrid sweet corn matures with Golden Beauty. A vigorous corn with large ears. From Otis S. Twilley.



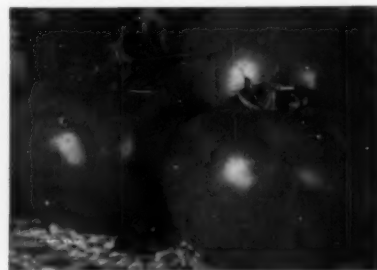
Tomato #1402 is a release of Campbell Soup Co. Outstanding canner type and green-wrap shipper variety. Resistant to fusarium wilt. SRS, Inc.



VATES BLUE CURLED SCOTCH kale is a compact, mound-shaped low growing plant. Outer leaves protect the interior. Geo. Tait & Sons.



Peto's **SATICOY** is an early crookneck type hybrid producing nearly smooth, deep yellow fruits; permits close spacing. From Hart Seed.



Bearing many fruits weighing a pound or more, Peto's **WONDER BOY** tomato, is ideal for production over a long season. From Walter S. Schell.

SPECIAL SEED OFFER

We're doing it again! We're repeating last winter's exclusive seed offer

OUR seed offer makes it possible for the commercial vegetable grower to receive—at small cost—some of the latest and best varieties offered by seed companies. These varieties are illustrated in the pictorial feature in this issue.

AMERICAN VEGETABLE GROWER believes you should try these varieties on a small scale. Leading seed companies are co-operating in the plan by offering to send you:

- 1) Additional factual information so you can study more closely the varieties listed.
- 2) Enough seed for a substantial trial planting—in some cases 200 or more row-feet.

The seed is being made available at cost or below to encourage you to try the varieties and determine how they grow and produce on your soil type.

Look over the varieties, then check the coupon for those you are anxious to try. Send the coupon with your check to us. We will see that you are provided with the seed you want. This offer expires February 15, 1962, so it is important that you send your check to us at once.

Reader Service Department
AMERICAN VEGETABLE GROWER

READER SERVICE DEPARTMENT AMERICAN VEGETABLE GROWER, Willoughby, Ohio

Please send me additional information and seed for a substantial trial planting of the varieties checked below. I enclose \$1.00 in payment for each seed packet requested. OFFER EXPIRES FEBRUARY 15, 1962.

Variety	Seed	Variety	Seed	Variety	Seed																																																																																																																																																																																																												
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I am enclosing \$.....
(Please make check or money order payable to AMERICAN VEGETABLE GROWER.)

NAME
(please print)

STREET OR RFD

TOWN ZONE STATE

My total acreage in vegetables in 1962 will be

John BEAN AIRCROP[®]

DOES WHAT OTHER SPRAYERS



Other sprayers may claim it, but John Bean Aircrops do it. The secret is Aircrop's Zone-Controlled air delivery. Straight-through air delivery plus the inverted tear drop design of the discharge head allow controlled zoning proportional to the entire spray swath. Zoned velocity gives maximum control at the end of the swath while spraying close up plants gently. Result? Complete coverage of every plant throughout the entire width of swath.

MORE COVERAGE PER PASS

New, easy-to-use, hydraulic controls rotate the discharge head to take full advantage of wind conditions. The wind works for you!

MORE LONG LIFE FEATURES

John Bean quality throughout assures years of trouble-free operation. Exclusive "Bean Bond" process protects tank against rust and corrosion, assuring long life.

MORE VERSATILITY

Adjustable internal vanes in the discharge head enables the operator to easily tailor the air pattern to fit existing conditions. With an Aircrop any spray program from dilute to time-saving concentrates is a matter of your choice.

MORE OPERATING EASE

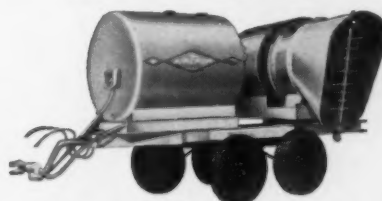
For easy, one-man operation, the remote control panel mounts within fingertip reach of the driver.

WOULD LIKE TO DO!



MORE MODELS TO CHOOSE FROM...

No matter what crops you grow, whatever the acreage size, John Bean has a complete Aircrop sprayer or attachment designed to fit your spraying needs.



MODEL 40-RC

Unequalled in work capacity by any row crop air sprayer. Covers up to 250 acres per day easily; optional high-clearance axle. New hydraulic controls.



MODEL 30-RC

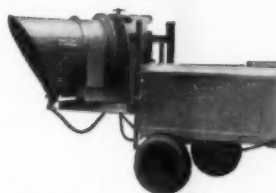
For medium-to-large acreages; covers up to 165 acres per day easily; new hydraulic controls; optional high clearance axle.

MORE INFORMATION



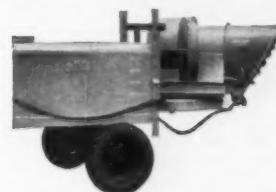
FREE CATALOG, BOOKLET

Free 20-page catalog on complete John Bean Aircrop line and helpful booklet "What You Should Know About Aircrop Spraying." Get the facts on the advantages of Aircrop spraying, spraying tips, complete information. Prepared by the people who pioneered and lead the field. Write for your free copies.



NEW 20-RC ATTACHMENT

For medium-to-large acreages; new low silhouette; new hydraulic controls.



10-RC ATTACHMENT

For small acreage air spraying; low silhouette; new hydraulic controls; orchard discharge head available.

ALL AIRCROP ATTACHMENTS ADJUSTABLE FOR SPRAYING HEIGHT

ASK FOR A SEEING-IS-BELIEVING DEMONSTRATION

Your John Bean Dealer cordially invites you to ask for a free Aircrop demonstration under your own specific field conditions. Let him show you every Aircrop feature and help you select the model or attachment that best meets your requirements. Write for his name—TODAY!



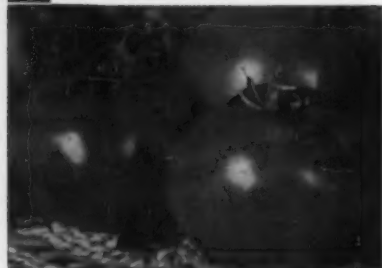
**AGRICULTURAL EQUIPMENT
JOHN BEAN DIVISION**

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WALTER S. SCHELL, INC.

TENTH & MARKET STREETS
HARRISBURG, PENNSYLVANIA

presents



HYBRID TOMATO WONDER BOY

A large, meaty tomato, with excellent flavor and color. Mid-season maturity — Productive over a long period! Many fruits weighing over one pound! Truly a wonder!

FARM CHEMICALS HANDBOOK

Since 1912 *Farm Chemicals Handbook* has been the standard reference of the plant food and pesticide industries. Now **AMERICAN VEGETABLE GROWER** makes it possible for you to have this invaluable reference.

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Pesticide Law Summaries by States
Geographic Listings of Farm Chemical Manufacturers
Listings of Specialty Chemical Manufacturers
Alphabetical List of Farm Chemical Manufacturers
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AMERICAN VEGETABLE GROWER,
Willoughby, Ohio

NPC Convention Considers National Marketing Proposals

Secretary of Agriculture asked to set up National Potato Advisory Committee. Change in council by-laws gives greater voting power to large shipping areas

By GEORGE PETER

Special Washington Correspondent

GROWER MEMBERS of National Potato Council in annual convention in Washington, D. C., November 13-15, took a bold and unprecedented step for their crop. They called for a national marketing agreement and order for potatoes and other forms of national controls, in an effort to block the feast or famine prospects growers have experienced in recent years.

Ranking in importance with this feature, prospects for disposition of the 1961 fall crop also picked up considerably during the convention. USDA officials, following a meeting with council member spokesman, promised to consider favorably a federal purchasing program to provide potatoes for relief programs. Distribution would be confined to the area of production to prevent surplus stocks from one area moving into another surplus market.

In resolutions, which in total added up to various forms of national marketing regulations, the convention approved an approach consisting of 1) additional control legislation to be presented to Congress next session, and 2) wider marketing agreement now possible under the Agricultural Marketing Act of 1961.

Considered dead from the start, however, was a bill approved by 14 eastern seaboard states which called for tight national production controls through acreage allotments and bushel marketing quotas.

An advance notice from Idaho and eastern Oregon growers, strongly supported by western processor interests, said in effect: we're going to vote down acreage or bushel quotas. The council resolutions committee decided it was useless to put the issue to a vote.

Although the "hot fight" expected over national production controls was prevented by avoiding a vote on the issue, some ill feeling was privately shown when western growing interests expressed strong sentiment for increased diversion payments and other government help. A complete bail-out of the western states' excess of around 19 million hundredweight would cost the government over a million dollars. This also never came to a vote.

The convention took place while the biggest crop since 1946 overhung the market, average prices were dragging



Al Mercker, re-elected executive director of NPC.

52% of parity, and record processed stocks on store shelves were enough to knock prices down the rule of thumb 25% even if the crop were only adequate.

The big step toward national marketing called on the Secretary of Agriculture to set up a National Potato Advisory Committee under Title One of the 1961 Agricultural Act. This provision makes it possible for any commodity not specifically exempted to become subject to a national marketing agreement and order on a petition from growers and hearings and approval by the Secretary of Agriculture. Potatoes are not exempted. New legislation is not needed.

Secretary of Agriculture Freeman was expected to name the committee at an early date. A council resolution also asked the secretary to select area members on the basis of volume and a requirement that each member be a potato grower. An exact definition of "grower" was not decided upon.

On the legislative level, the committee would study and make recommendations for a comprehensive national program for potatoes. In addition, the committee would be called upon to consider the advisability of setting up a program that could operate entirely within a national marketing agreement and order. This would not require new legislation and would be less restrictive in form. Acreage allotments would not be possible, for example.

Under a national marketing agreement, which conceivably could be on the books by spring, culls and pick-outs

(Continued on page 26)

AMERICAN VEGETABLE GROWER

TOMATOES

Seeds In, Weeds Out

SOLAN, formulated as an emulsifiable concentrate, is a new herbicide being introduced by Niagara Chemical Div., FMC Corp., which is expected to revolutionize methods of planting and harvesting tomatoes.

Solan is applied after weeds emerge, making possible successful direct seeding of tomatoes and a more efficient mechanical harvesting operation.

It is also well suited for use on transplants and is the first weed control that can be sprayed right over established tomato plants without causing damage.

Label claims for its use have been accepted by USDA, and in 1961 some 100 commercial tomato growers tried Solan with highly favorable results.

Occasion of the announcement concerning Solan was the opening of Niagara's new modern research facilities at Middleport, N. Y. Pesticide chemical research will be conducted here for compounds that kill undesirable insect species. The possibility of controlling insects by sterilization or interruption of metamorphosis in the life cycle will also be investigated at the new research facilities.

Plastic or Glass

MANY times the question of raising greenhouse tomatoes under glass or plastic has faced the prospective tomato grower in Indiana.

The Department of Horticulture at Purdue University conducted experiments this past season under both glass and plastic to find an answer.

Seed for the spring crop to be raised under glass was planted December 15. The seedlings were transplanted in 3-inch square peat pots. They were grown at night temperatures of approximately 55° F. After being set in the house January 25, night temperatures were held as near as possible to 58° F.

The blossoms were pollinated with an electric vibrator twice a week. No hormone spray was used at any time, even though unfavorable conditions for pollination occurred several times during the season.

The plants were fertilized twice, the first time when the first two clusters had set fruit.

All plants were inoculated with leaf mold by spraying a solution containing the organisms on the foliage. Spartan Red 8 and MSF_xWR3 developed leaf mold late in the season.

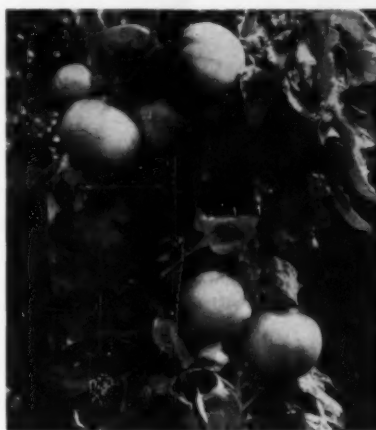
Dr. Leslie Hafen reports that not one of Purdue's new leaf mold resistant plants showed symptoms of the disease.

The plants were spaced 1½ feet apart in the row with 2.81 feet between rows,

in the groundbed. The house was 36 feet wide and 73.5 feet long. The average yield was 11.36 pounds per plant. A total of 3.77 tons were produced in the 2646 square feet of space. Six Spartan Red 8 plants yielded 159 tomatoes; 36 MSF_xWR3 (Purdue selections not yet released) yielded 1332.

The yield rate for this spring crop was 62.11 tons per acre, and the quality of the fruit in general was excellent. In fact it was the best recorded in recent years. Harvesting was begun April 25 and completed July 18.

A look at the data proved that the fruit of the seven leaf mold fusarium wilt resistant lines were larger, and total yields were as good as, or better than Michigan State Forcing x Ohio WR3 Globe. The development of leaf mold on Spartan Red 8 and the MSF_xWR3 hybrid late in the season probably had little effect on their performance.



Purdue leaf mold fusarium wilt resistant #38, one of varieties used in greenhouse trials. It produces four to six large fruits per cluster.

Spartan Red 8, developed at Michigan State, had smooth fruit of uniform size with the clusters close together. Observations of its growth and fruit setting ability indicated that it would have responded to heavier applications of fertilizer.

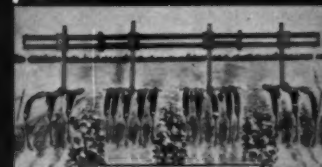
Purdue University is increasing seed of leaf mold fusarium wilt resistant lines used in the experiment and should have a limited supply of seed available to interested growers for the spring crop in 1962.

In the plastic greenhouse trial planting, there were five commercial greenhouse varieties and hybrids used: 1) Michigan State Forcing; 2) WR3; 3) Michigan State Forcing x Ohio WR3; 4) WR7; and 5) Michigan State Forcing x Ohio WR7.

Forty leaf mold resistant selections developed by the Horticulture Department of Purdue University were also planted with these varieties January 10. The plants were set in the ground beds of a plastic house March 2, and were

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BEET Outstanding new early bunching beet named for its glossy, green tops that stay fresher looking and greener longer, even under adverse weather conditions. The tops (16-18 inches) make excellent greens. New, improved strain has round, smooth roots that wash to an attractive dark red color. Interior flesh is fine textured and uniformly dark red. Average maturity: 52 days.



PERFECTO BLANCO ONION

Superior selection for stripping or dry usage. Derived from White Sweet Spanish. Mild flavored, good dark green tops, beautiful silvery white, long shanks. Vigorous, thrifty, and good semi-hardiness with a high degree of uniformity. Has thick tender blue-green stems that bulb slowly... produce high quality yields. Exceptionally heavy yielder of top quality marketable stripping onions.



***These four improved varieties prove it...
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Northrup King will breed them!***

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Famous for its unusually fine eating quality and uniform marketable ears — packs 5 dozen per crate. Ears are long (8¼-8½"), 1¾" in diameter with 14 rows, excellent tip fill. Tight husk with dark green flag leaves; good tip coverage; resists ear worm attacks. Plants are 7-8 feet tall with good stalk strength and vigor; high ear placement. Wide adaptability. Average maturity: 85 days.



SHAMROCK ONION

Exciting new variety . . . named for its striking, handsome dark green tops (slightly darker green than Perfecto Blanco and many other onions of this type). Mild flavored, very white crisp flesh, long shanks. Exceptional uniformity . . . high yielder. Vigorous, thrifty, dependable, and good semi-hardiness with high market quality. Especially selected for stripping or dry usage.



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spaced 18 inches apart in rows two feet apart. The center walk was 2.5 feet wide. There were 455 plants in the 18 by 96 foot house.

Blossoms were pollinated with an electric vibrator three times a week. No hormone spray was used at any time with the crop. Plant growth and fruit set were good even though the outside temperatures were cool, and considerable cloudy weather was experienced. A systematic fungicide-insecticide spray program was carried out.

Picking began June 6 and ended August 8. By the end of June, 1573 pounds of marketable tomatoes were harvested from the 455 plants in the 1728 square feet of space. For the entire season, 2 tons or 8.8 pounds per plant were harvested from the planting. This means that the yield rate for the spring crop in this plastic house exceeded 50 tons per acre.

The quality of the fruit was excellent. In fact, during July, the fruit picked in the plastic house was superior to that harvested from the glass house. The fruits were firmer and much freer of growth cracks than those picked in the glass house.

These results continue to show that with wise management, heavy yields of high quality tomatoes can be produced in plastic greenhouses in Indiana.

POTATOES

Truly "Superior"

SUPERIOR, a new white, early maturing, scab-resistant potato variety with high chipping quality, will be available to growers next year.

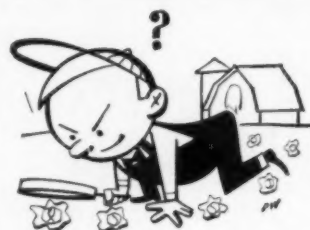
During tests over a three-year period, Superior has shown more resistance to scab than any other variety tested, according to G. H. Rieman, University of Wisconsin potato breeder.

This variety is excellent for potato chips, Rieman said. It produced more chip size potatoes than any one of the



Seed stocks of Superior variety tend to remain free from common tuber diseases. Tubers have tough skin, are adapted to mechanical harvesting.

YOU be the EXPERT!



PETE'S cabbage seemed to wilt more than normal on hot days. The lower leaves had a yellowish color and when a plant was pulled the roots were swollen and misshapen. He had fertilized them as usual with 800 pounds per acre of 5-20-20 disked in before planting followed by a side-dressing with nitrogen after the plants were in the field three weeks. Excellent cauliflower had been raised on this same 8-acre field the two previous years. Chlordane and a starter fertilizer had been used in the transplanting water at recommended rates. What is your diagnosis?

(Answer on page 26)

other 29 selections in the trial. Rieman discovered that Superior potatoes, even when held in cold storage for several months before processing, had excellent chip color. Also important was Superior's high yield of dry matter, 4449 pounds per acre.

Already tested in several areas in Wisconsin, Superior shows a wide range of adaptability to that state's various soil and climatic conditions, Rieman reported.

As we go to press, word reaches us that Dr. Rieman suffered a fatal heart attack.

BEANS

Fragile

DON'T crack that snap bean seed! Breakage of the bean cotyledons, or storage portion of the seed, will result in poor plant growth according to recent Cornell research.

When only one-half cotyledon was attached to the young plant, yields were reduced by more than half.

To insure better growth, obtain bean seed free from appreciable cracking and then handle with care.

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Packs of wood fiber, plastic, pots of peat fiber and plastic, wood veneer bands, and a complete line of other containers also are offered in our new catalog. Jiffy-Pots are now available in strip form fastened together in twelves and are rapidly being taken up by progressive bedding plant growers who realize that they are the most satisfactory bedding plant container for the consumer, and when all is said and done, she is the boss! They're using Jiffy-Strips with plastic trays for an inexpensive "handlable" combination growing/selling container. It is fully described in our catalog.



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Each of our customers receives a complimentary copy of a 32"x44" color poster — a real help for illustrating Sweet Sixteen annuals to your customers. Additional copies are available at cost price for distribution to your retail customers. We also sell at cost plastic color picture labels, jumbo picture cards, and color stuffers and mailers to help you and your customer stimulate more bedding plant business. Ad mats are available at no charge for our customers who wish to make use of special illustrations which we offer in mat form.

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DECEMBER, 1961



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As It Looks To Me

By JOHN CAREW

Michigan State University, East Lansing

This is the first overseas report from Dr. Carew who is on sabbatical leave in England for several months.—Ed.

ENGLAND 1961: The differences between England and America have been thoroughly described, defended, and criticized in every pub of this beautiful island. It's a favorite indoor sport during the tourist season.

As long as we drive on opposite sides of the road and maintain different forms of government, words will be exchanged and not all of them complimentary.

The undisputed fact remains, however, that we in America can learn quite a few things from the English and they in turn can benefit from our experiences. Vegetable research, production, and marketing are no exception.

Surrounded by century old buildings and customs, many Englishmen strongly resist change. The social effects of higher salaries, more automobiles, increased leisure time, new homes, and supermarkets are resented by many as the evils of Americanization rather than the usual by-products of an improved economy which they are.

But in the research stations and on progressive farms men are looking ahead with enthusiasm; men with a deep dedication to strengthening Britain's food producing ability; scientists like Dr. James Philp, Director of the National Vegetable Research Station and his staff; growers like W. J. Soper and Hugh Darby; advisory personnel like Geoffrey Stansfield and industry men like Alan McWilliam of H. J. Heinz.

Six weeks at the National Vegetable Research Station here in the center of England 5 miles from Stratford-on-Avon is an unparalleled education; the small hut and muddy roads of eight years ago have blossomed into a first-class 375 acre station with 42 capable scientists.

Although Dr. J. C. Haigh, keen-witted head of the plant breeding section seeks mainly to evolve new breeding techniques, his staff will shortly be releasing several improved varieties of lettuce, peas, cabbage, cauliflower, and a remarkable hybrid Brussels sprouts that will top Jade Cross. Sprouts are a

mainstay in English winter diets and Haigh's long term program of improvement is ready to pay off. There are probably more acres of experimental sprouts in this country than there are in commercial production in 47 of the 50 United States.

Members Day at the station, for members of the British Society for the Promotion of Vegetable Research, featured onions. Although England consumes 248,000 tons of dry bulbs annually, local production accounts for less than 10%; R. Austin of the plant physiology section gave these statistics:

Sources	Tons
Home grown	25,000
No. Europe (mainly)	
Holland and Poland	92,000
Spain	70,000
Mediterranean countries	39,000
Other countries, (Chile, South Africa, etc.)	22,000
	248,000

"Let's grow more of our own onions" was the plea made by Dr. J. K. A. Bleasdale who impressed the audience of growers and industry men with the economics of raising this crop in 3 1/2-inch rows, at heavy seeding rates with chemical weed control. Admitting that curing the crop under damp English conditions might be a problem, he suggested the use of grain dryers normally not in use at onion harvesting time.

Bleasdale and Nelder have devised a "fan" system of studying the effects of plant population (density) and spacing pattern (rectangularity) that would appear to test the sanity of their assistants but one that actually offers a wealth of information in a limited land area. Both have become ardent advocates of heavier planting rates and closer row spacings for carrots, onions, and peas.

The English appear on the verge of passing a law to protect plant breeders—a sort of plant patent act. This is in sharp contrast to their attitude eight years ago when disapproval of the Dutch and German systems was prevalent. They now feel that patent rights on new varieties will stimulate plant breeding and ultimately benefit everyone except those seed firms who have been pirating the output from their competitors.

On the lighter side, getting our family settled in Stratford-on-Avon has been enjoyable. The English are unfailingly courteous and helpful to strangers, even those who forgetfully drive on



the right and incorrect side of the road.

The countryside of the Midlands is beautiful, as green pastures and crops testify to a well-distributed rainfall. Hedges everywhere divide the small fields. To the typical American suggestion that removing these might allow for more efficient land use, one successful hedged-in grower replied, "I like their appearance; some things are more important to me than my farm income."

You soon gain the opinion that vegetable growing is more a way of life than a business for most small English growers. And that the same is true for most food store owners. The impact of chain store supermarkets has not been felt; although their numbers have risen from 50 to 500 in the past 3 years. When mass merchandising and its fellow traveler volume buying hit this fruit and vegetable scene, perhaps at the same time England enters the Common Market, we shall witness changes even more drastic than have occurred in the United States.

THE END.

SQUASH

The Barrier Is Broken

NEW types of squash may be on the way! A genetics barrier has prevented cross-breeding of the squash species. But, Glen Davis of University of California Department of Vegetable Crops at Davis, holds the answer to the problem in his hand.



This small, wild gourd has an unusual ability to inter-breed which it passes on to its progeny.

USDA and University of California scientists have created hybrids similar to the large, striped squash which is descended from three distinct species, by using this genetic bridge.

DECEMBER, 1961

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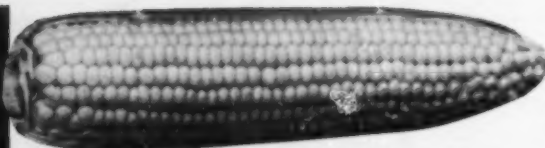
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Big useable sample piece 10 ft. long by 3 ft. wide. Send \$1.00 cash, check or stamps for this big sample by mail, postpaid

MARKETING PROPOSALS

(Continued from page 18)

could be barred from shipment in interstate commerce.

A third alternative would be legislative authority to ban the sale of potatoes below grade No. 2, except for processing into starch, flour, and industrial alcohol. Drives would go forward simultaneously for one or the other of the new marketing proposals. The resolutions for this purpose were carried by majority vote.

Increased worry by growers over competition of processed products in the market also popped out in a final vote by the council to eliminate the current exemption for canned and frozen potato products in marketing regulations. Legislation will be introduced in the next session of Congress.

A final sign of grower interest in the Freeman ideas of "supply management" for agriculture was approval for a change in council by-laws that would weight future council voting on action programs in favor of shipping area volume. California, Idaho, and Maine now will have seven votes each while 20 other states will be reduced to one vote each. Previously, each state had two votes apiece. The change will be important if Secretary Freeman selects membership on the advisory committee in terms of shipping volume.

Officers elected were John C. Broome, North Carolina, as president; William B. Camp, California, vice-president; Frank McGee, Colorado, secretary; and Ben H. Diercks, Wisconsin, treasurer. By a resounding ovation, A. E. "Al" Mercker was again elected executive director.

THE END

Answer to YOU be the EXPERT!

(See page 22)

This is clubroot, a disease caused by a slime mold in the soil, that attacks most members of the cabbage family. Long rotations are necessary once clubroot appears in a field since it can live over for at least six to seven years.

In the future, Pete should a) plant his seedbed in "clean" soil where no diseased crucifers have ever been grown; b) plant his cabbage and cauliflower in fields where the disease has not shown; and c) follow a six or seven year rotation.

If these practices are not feasible, he should use Terraclor (PCNB) in his transplanting water. This material will not eradicate the disease but it protects the plant from early infection and greatly reduces crop losses.

AMERICAN VEGETABLE GROWER

MARKETS...

TRENDS AND FORECASTS

Special Report

AMERICAN VEGETABLE GROWER, DECEMBER 1961

UNIONS FAIL TO ORGANIZE FARM LABOR. At least for the present, union pressure to organize farm labor in California has fallen far short of its initial goal. Only 3500 members out of a potential of 250,000 have been signed up to date. Union efforts, however, are expected to continue toward their goal.

RUSSIA HAS LONG WAY TO GO TO MATCH AMERICAN AGRICULTURE. According to a recent USDA report, American farmers annually produce about 60% greater output on about one-third fewer planted acres and with only one-eighth the number of agricultural workers compared to the Soviet Union.

WAYS FOUND TO STRENGTHEN VEGETABLE MARKETING ORGANIZATIONS. A recent Michigan State University study of fresh-vegetable marketing organizations in Michigan and Ohio has revealed that the activity of the board of directors is a key factor in their success. It is suggested that local group marketing organizations increase 1) the number of members on their board of directors, 2) the frequency of board meetings and 3) the frequency of regular membership meetings to strengthen their chances for successful operations.

MARKETING ORDERS TO RECEIVE MORE EMPHASIS. The New Administration is continuing its push to provide legislative machinery for marketing orders on more farm commodities. The so-called omnibus Farm Bill says all commodities can be put under marketing orders unless specifically excluded. In future years most commodities will probably be covered.

OUTLOOK FOR VEGETABLE EXPORTS TO CANADA. Fresh vegetable exports are expected to continue the upward trend of recent years. The volume of exports of frozen vegetables will likely increase, too, but at a slower rate compared to the past decade. These are predictions given by the Foreign Agricultural Service.

RECORD PRODUCTION OF SOME PROCESSING CROPS. USDA reports a record production of sweet corn, red beets, and lima beans this past season. These are up 25, 22, and 24% respectively compared to 1960. These achievements are likely to have some effects on the extent and nature of contracting for these crops by processors for the coming season.

CHANGING MARKET SITUATION OUTLINED FOR AGRICULTURE. Some co-op experts indicate that agricultural marketing is gradually moving through four successive stages: 1) all farmers acting as individuals; 2) local group action; 3) regional group action; and 4) finally a few large-scale sellers of all agricultural products. We are now somewhere between stages one and three.



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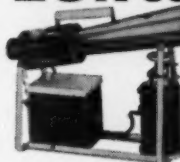
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STATE NEWS

TEXAS

Record Breaking Day

SOUTH Texas Vegetable Day's 10th anniversary began and ended by breaking all records for previous years. The largest crowd ever to attend the show was treated to a spirited auction for the grand champion vegetable. This auction ended with a new high of \$5700—more than double the amount paid other years.

The bid was submitted by Aubrey Kline, representing Pearl Brewing Co., for the Grand Champion beans grown by Phil Podevyn. Podevyn grows broccoli, carrots, cabbage, and beans on 120 acres in Castroville, west of San Antonio. The reserve champion went to Kohlepel Brothers, San Antonio, for mustard greens.

Some of the 279 entries came from as far away as the Rio Grande Valley, the Winter Garden, and central Texas.

Climaxing the eventful day was the last bid which put the auction over the \$20,000 mark for the first time.

According to Henry Van De Walle, president of the show, "It was a great day for south Texas." Van De Walle is also president of Texas Vegetable Growers Council.

WISCONSIN

They Proved A Point

UNLIKE many other co-operatives formed to market their crop of potatoes, Antigo Potato Growers, Inc., has realized a profit each year since its organization in 1959.

During its first four month marketing period, more than 450 carloads of potatoes were shipped to all parts of the nation, with a volume of business amounting to over \$226,000.

Now the organization markets the entire crop of 2800 acres belonging to its 30 members.

There's a list of other growers waiting for membership but the plan called for a maximum of 30 members who signed up for a three year period.

The co-op is designed to provide a dependable and continuous supply of uniformly graded and properly packaged potatoes to meet the requirements of supermarkets and other large volume buyers. All potatoes are federal-state inspected.



Queen Nancy Jo Wiggins (also FFA Sweetheart) stands beside winner Phil Podevyn, who is holding the championship cup. Beside them (right to left) are Pearl Brewing Company's Aubrey Kline and Pat O'Brien.

The key advantage of the co-op setup, according to Lyman Diercks, president of the organization, is that it effectively lifts the marketing problems from individual members.

NEW JERSEY

Battling "Urban Sprawl"

THE Garden State is fighting back against that nation-wide problem—urban sprawl. First step was the formation of the New Jersey Rural Advisory Committee in 1954 to study the effect of industrial and residential developments on agriculture and rural communities and to prepare recommendations for the state department of agriculture.

Out of that study has developed a pilot study on land use planning for six rural New Jersey townships. Here's how the advisory committee worked:

In each township, data on existing land use, topography, slope of the land, soil capability, geology, ground water resources, and drainage conditions were collected. Later, theoretical land use plans were developed on the basis of the natural resources and other physical factors of the area.

Results of the study proved that the rapid and unguided urbanization is one of the state's major problems. For example, in one township 54% of the land now vacant and awaiting development is in an ideal agricultural area. This, despite the fact that 50% of the land

best suited for urban development is still available for that use. Analysis of another township showed that 36% of its crops are now being grown on land classified as best suited for "urban use" or as "uncultivable."

The Council, now a permanent part of the state department of agriculture, is about to begin a study of farm organizations to determine how they can better serve the state's agricultural interests.

Together with their report on rural development, the new study should prove of assistance to Garden Staters.

ARKANSAS

Weather Aids Crop

TOMATO growers are looking forward to a predicted 26% increase in production over last year's crop. The reason—favorable weather conditions have aided in the development of the crop.

The Arkansas Crop Reporting Service predicts a drop in watermelon production, from 1,190,000 cwt. last year to 1,008,000 cwt. in 1961. This year's cantaloupe crop is also estimated at 17% below last year's production. Cool, wet weather has delayed development of the crop.

FLORIDA

FFVA Convention

APPROXIMATELY 1500 people met for the 18th annual convention of the Florida Fruit and Vegetable Association at Miami Beach, September 27-29.

J. Abney Cox, Princeton, was elected president; retiring president, J. P. Harlee, Jr., Palmetto, vice-president. Joffre C. David will continue as secretary-treasurer and general manager.

Brooks McCormick, executive vice-president of International Harvester Company, was the keynote speaker. He pointed out that efficiency of production by growers has increased by 120% during the past 18 years as compared to a 50% increase in other industries.

The annual FFVA Distinguished Service Award was presented to Florida's Senator George Smathers, as the man who contributed most to agriculture during the past year. Research Awards were presented to Dr. Donald L. Brooke, associate agricultural economist, University of Florida, and to Dr.



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Preference makes sales — and when your produce reaches the market in *prime* condition, it's bound to have top buyer appeal.

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J. Abney Cox, Princeton, Fla., president of the Florida Fruit and Vegetable Association.

B. A. Broune, vice-president of research, U. S. Sugar Corp., Clewiston, Fla.

While presenting the Research Award to Dr. Brooke for his work in gathering data pertaining to the cost of producing and marketing Florida vegetable crops, Doyle Conner, Florida Commissioner of Agriculture, said, "Marketing is a No. 1 problem in agriculture today, and we are 20 years behind in some marketing areas."

In keeping with a resolution adopted at the 1960 convention stating that "the FFVA shall actively participate in programs that will develop greater bonds of unity with non-agricultural industry

groups," the theme of this year's convention was "Your Friends and Ours," stressing the interrelationship of agriculture and business.

NORTH CAROLINA

Council Meeting Preview

ADOPTION of a constitution and by-laws are the important considerations on the agenda for the organizational meeting of the Sweet Potato Council of the United States, January 22-23, at North Carolina State College, Raleigh.

Dr. Julian C. Miller, of Louisiana State University, leading authority on the sweetpotato, will speak on "Facing the Future."

MICHIGAN

Seal of Quality

VEGETABLES and fruits from Michigan will soon be labeled with a seal of quality. Prior to passage this year, the bill authorizing the seal had been rejected for 12 years by the state legislature.

Purpose of the seal is to gain better out-of-state recognition for many of the state's products. Cost of administering the program will be borne from fees collected from participating growers.

PACKAGING & MARKETING

Fresh, Crisp, and Firm!

CRISPER lettuce is on the way! Housewives will soon be finding crisper, more eye-appealing heads of lettuce in the produce departments of their grocery stores.

Bud Antle, Inc., largest lettuce grower in the United States, has adopted a method of field wrapping lettuce that assures consistent delivery of high quality pre-wrapped heads to any market in the country.

The new system involves the use of Trycite 1000, a polystyrene film, and a harvesting machine designed for this operation by Bud Antle, Inc. Trycite 1000 was developed by Dobeckmun, Division of Dow Chemical, to retard respiration and prolong the shelf life of lettuce.

The first step in the field wrapping operation begins with a crew of lettuce cutters working ahead of a giant self-propelled machine carrying a wrapping crew on giant outrigger booms. The cutting crew carefully selects the mature lettuce and cuts away the outside wrapper leaves.

Other workers then inspect the heads and place them in trays suspended in front of the wrapping machine operators. After the head is wrapped and



Heads of lettuce move along a conveyor belt after the Trycite film has been shrunk to fit. The lettuce is then packed into boxes. This is the final step in a packaging operation that starts and ends in the field in which the lettuce is grown.

sealed in Trycite it is placed on a conveyor belt, carried through a shrink tunnel and then into cartons on an attached flatbed truck. Here the shipping containers are packed with lettuce. They are then rushed to the vacuum cooler and from there into iced cars headed for market.

Shipments of lettuce in the new wrap have been made to Cleveland and other

AMERICAN VEGETABLE GROWER

eastern and midwestern markets and have arrived in excellent condition.

It is estimated that the saving on pre-wrapped lettuce shipped from California to New York City will amount to about 34 cents a box, or \$225 a carload over the present method.

Patent applications have been made on the Antle process which cover the entire process, from field wrapping to cooling.

The new process will be available to other growers and shippers, it is reported.

Celery Marketing Order

SUPPORTED by more than 93% of the producers in the state, a state celery marketing order became effective on August 21. This is the first farm product marketing order to be administered by the state department of agriculture.

Covered under the order are correlation of supply to demand; flow-to-market regulation; quality, pack, and container regulations; research studies and projects; advertising and promotion; and assessments not to exceed 5 cents per crate.

Florida's sweet corn is covered by a marketing order which involves advertising and promotion only and is administered by the sweet corn industry.

CALENDAR OF COMING MEETINGS & EXHIBITS

Dec. 6-8—Empire State Farm Show, War Memorial Building, Syracuse, N.Y.—Philip Luke, R. D. 3, Fulton.

Dec. 6-8—New York State Vegetable Growers annual meeting, Empire State Farm Show, War Memorial Building, Syracuse—William Stempfle, Sec'y, Batavia.

Dec. 8-9—Iowa State Vegetable Growers Association winter meeting, Hotel Hanford, Mason City.—C. L. Fitch, Sec'y, P. O. Box 421, Station A, Ames.

Dec. 11-12—Northern Seedmen's Association annual meeting, Radisson Hotel, Minneapolis, Minn.—R. L. Olthoff, Sec'y-Treas., Bismarck, N. D.

Dec. 11-14—Vegetable Growers Association of America annual meeting, Muehlebach Hotel, Kansas City, Mo.

Dec. 11-14—Weed Society of America's North Central Weed Control Conference, Jefferson Hotel, Memphis, Tenn.—K. P. Buchholz, Pres., University of Wisconsin, Madison.

Jan. 9-10—Texas Vegetable Growers Council annual winter meeting, Produce Terminal Market, San Antonio—Marcus Dingler, Sec'y-Treas., Box 1292, Pecos.

Jan. 9-10—Ohio Pesticide Institute meeting, Nationwide Inn, Columbus—Robert E. Treece, Ohio Agricultural Experiment Station, Wooster.

Jan. 9-10—Indiana Vegetable Growers Association annual meeting—Purdue University, Lafayette, Ind.—Kenneth M. Brink, Sec'y, Purdue University, Lafayette.

Jan. 9-10—Connecticut Vegetable Growers Association annual meeting, Hotel Bond, Hartford, Conn.—Ray Cocconci, Sec'y, R. F. D. 2, Andover.

Jan. 15—Maryland Vegetable Growers Association annual meeting, Lord Baltimore Hotel, Baltimore, Md.—Herman Hunter, Sec'y, University of Maryland, College Park.

Jan. 18-19—New Mexico Fruit and Vegetable Short Course, New Mexico State University, University Park—J. V. Enzie, New Mexico State University, University Park.

Jan. 22-23—Sweet Potato Council organization meeting, North Carolina State College, Raleigh—Motte V. Griffith, Jr., North Carolina State College of Agriculture and Engineering, College Extension Division, P. O. Box 5125, Raleigh.

Jan. 25-27—New Jersey Farmers Week, Trenton. **Jan. 24**—Vegetable meeting, Stacy-Trent Hotel, Trenton—Philip Alampi, Sec'y, New Jersey Department of Agriculture, Trenton 25.

Jan. 25—New York Canning Crop Growers Cooperative, Inc., annual meeting, First Presbyterian Church Hall, Batavia—Mike Muscarella, Sec'y, Batavia.

Jan. 29-31—Pennsylvania Vegetable Growers' and Cannery Fieldmen's Educational Conference, Nittany Lion Inn, University Park—J. O. Dutt, 203 Tyson Building, University Park.

Jan. 28-31—Ohio State Horticultural Society and Ohio Vegetable and Potato Growers joint meeting, Netherland-Hilton Hotel, Cincinnati—C. W. Ellenwood, Sec'y, OSHS, Rt. 2, Wooster; C. Wittmeyer, Sec'y, OVP, Ohio State University, Columbus 10.

Jan. 30-Feb. 1—New Hampshire State Horticultural Society annual meeting, Highway Hotel, Concord, N. H.—E. J. Rasmussen, Sec'y, University of New Hampshire, Durham.

Feb. 12-15—United Fresh Fruit and Vegetable Association annual convention, Statler Hilton Hotel, New York, N. Y.—Association headquarters, 777 14th St., N.W., Washington 5, D.C.

Feb. 22-24—Watermelon Growers Distributors Association, Biltmore Hotel, Atlanta, Ga.—J. J. Parish, Sec'y-Treas., Adel.

April-October, 1963—World Exhibition of Horticulture, Hamburg, West Germany.—Exhibition Management, IGA 63, Pflanzen und Blumen, Hamburg 36.

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GREENHOUSE CROPS

A Careful Planner

TRY to obtain the latest greenhouse
construction facts before you build.
Neglect to do this and your range may
be obsolete upon completion. John Tal-
mage, of Riverhead, Long Island, N. Y.,
has been gathering information for two
years.

Talmage made a return visit to Cleve-
land, Ohio, this summer to double-check
his plans. His purpose was to install an
efficient heating system and avoid cost-
ly errors. Cleveland, with its great con-
centration of glass, has evolved a sys-
tem ideal for this area.

John and his father, Nathaniel,
have 25 years' experience with green-
house tomatoes. As a side line to their
main farm operation it has paid well.
All fruit has been sold locally at a whole-
sale price Cleveland growers seldom
realize.

A single one-tenth acre house is used
to force daffodils for the spring florist
trade. The bulbs are grown on the farm,
dug in late summer, precooled, and
planted in forcing flats. By late Novem-
ber the flats are brought into the green-
house and forced into flower.

By the first of March a spring crop of
tomatoes is planted in the house. Prin-
cipal variety has been Waltham Forc-
ing, a small red type. Average gross
yield has been 12 pounds per plant.
John has experimented with Michigan-
Ohio Hybrid and Ohio WR 7. The red
varieties have been most popular but he
feels the pink types need further trial
under their conditions for best results.

The Talmage farm is similar to most
in Suffolk County. They grow 140 acres
of potatoes, 15 acres of cauliflower, plus
daffodil bulbs. Four generations live on
the same farm started by John's great-
grandfather. An old landmark known
as Friar's Head was taken for the farm
name.

Greenhouse tomatoes are a minor
crop on Long Island. Total production
is estimated at 5 acres. The crops are
sold locally to retailers, delicatessens,
and roadside markets.

Demand has been high for these qual-
ity fruits. One grower remarked his
buyer had to ration three tomatoes per
customer in the early season. Most Long
Island growers consider the crop has a
great future. Talmage plans it as a
hedge against falling potato returns and
the inroads of urbanization.

Last year Associate County Agent
Norm Smith, of Nassau County, New
York, toured Ohio, Michigan, and On-
tario greenhouses with a party of five.
The Long Island vegetable research
farm has since established a greenhouse
research program. Stewart Dallyn, di-

rector of the station, feels the day will
come when more greenhouse tomatoes
will be grown on the island. They want
to be ready with answers to the growers'
questions.

Talmage plans to incorporate
some Cleveland practices into his new
one-third acre Lord & Burnham range.
Heat lines will be low to the ground and
between every other row. Gutter heat
lines will likewise be lower. Automatic
ventilators and steam valves will save on



With greenhouse in the background, four gen-
erations of Talmages gather in yard. They are
John Talmage (right), his grandmother, Ellen, his
son, William E., and his father, Nathaniel.

fuel as well as maintain proper day and
nighttime temperatures.

The diphenylamine tissue test to de-
termine available nitrate nitrogen in
stem tissue will be used in the spring
crop as a fertilizing guide.

John feels his visit to greenhouse
areas has been of tremendous benefit.
He was enthused by the cordial hospital-
ity shown to a fellow grower. There was
no hesitation to answer questions or
share ideas. He had more confidence to
go ahead with greenhouse expansion
plans after the visit.—Fred K. Buscher,
Cuyahoga County (Ohio) Agent.

For Control of Whitefly

LETHALAIRE G-67, a greenhouse
aerosol formulation containing
10% Thiodan, has been approved for
use on greenhouse tomatoes up to 15
hours before harvest.

The new approval enabling a grower
to use Lethalaire G-67 up to 15 hours is
of particular value in control of green-
house whitefly during the harvest pe-
riod.

Working drawings for an attractive roadside mar-
ket stand are available for \$2.00 a set from
AMERICAN VEGETABLE GROWER, Willoughby,
Ohio.

PUZZLING BEHAVIOR

(Continued from page 9)

of boron. The variety Tall Utah 52-70 is apparently a very efficient user of boron under these conditions.

Temperature, day length, and moisture are three things about which plants are extremely finicky.

Valverde lettuce, for example, is more subject to bolting when planted in warm weather. The variety Great Lakes 659, on the other hand, is more heat tolerant than most other strains and will head up well as a spring crop in the East. The variety Jade is resistant to cold weather in late stages of growth.

Very few of the varieties or even strains of California type lettuce will do well on muck soils in New York and Wisconsin. The California varieties tend to be big and fluffy and do not form a hard head. Cornell 456 has become a standard in these two states because it forms a head under their heat and light conditions.

Even varieties adapted for a certain area, such as California's Imperial Valley, are particular about the time of year they're planted. The standard Great Lakes type of lettuce used for fall harvest in the Imperial Valley would produce heads too small for market if they were planted for midwinter harvest in the same area. The varieties Imperial 101 and Climax used for winter harvest would produce loose, unmarketable heads if they were planted at other times of the year.

Daylength, as influenced by latitude or date of planting, has unusual effects on many plants.

Cucumbers are influenced by it to change the sex ratio; onions to bulb or not to bulb; radishes in length of top leaves and type and amount of swollen root. Sweet corn is so sensitive to daylength that varieties which have an average height of 8 feet when grown in the South will shoot to a average of 12 to 14 feet when grown in New England. Conversely, northern corn varieties are stunted and unproductive when grown under southern conditions.

Onions are particularly fussy. There are short and long day types. Varieties such as Crystal White Wax, Excel, Texas Early Grano 502, and others produce practically no bulbs at all if grown during summer in the North under long days. On the other hand, long day types, such as Yellow Sweet Spanish and Brigham Yellow Globe, won't make marketable bulbs in the South during short days.

Moist soil conditions also affect the performance of certain onion varieties. Elite, Downing Yellow Globe, and a good number of standard varieties and hybrids do not do well in Canada and northern Wisconsin where the season is

(Continued on page 35)

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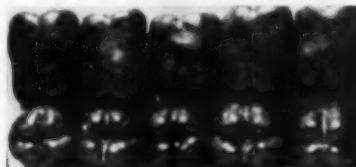
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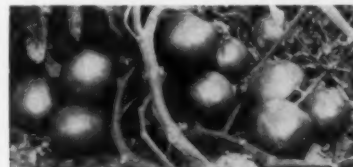
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New Fusarium Wilt Resistant Queen of Colorado Cantaloupe. Vigorous vines; keeps well after picked. Fine appearance, delicious flavor, ideal market variety. Has good sales appeal on all markets.

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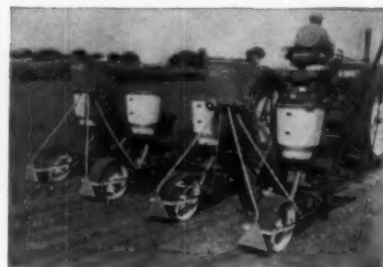


when not in use for frost protection such as driving pumps and sawmills. The new Rotary Heat-Mobile has been tested conclusively in vegetables and incorporates many cost-saving devices. For example, there is no necessity for a towing vehicle and operator. One man can service a number of rotary machines. Growers I have talked to point out, too, that maintaining these machines is much simpler than the messy job of maintaining pots and burning old tires. Here's a development you should look into immediately. Why not write M. R. Robinson, of Robinson Blower and Engineering Corp., Box 45, San Martin, Calif., for more details.

Protect Two Ways

Growers are enthusiastic about the new granular-type chemical applicator they used this season. The results have been profitable and more than worthwhile. The "Protecto-Zone" applicator protected their crop profits in two ways: by applying herbicides that 1) gave

weed zone protection, and 2) root zone protection from soil insects. The new applicator has features that assure accurate metering and application of granular insecticides and herbicides. These two chemicals can be applied at the same time or singly. Protecto Zone fits all types of planters and listers, and with one pass through a field the grower can plant, fertilize, control weeds, and kill insects. Here's a piece of equipment that can be a great aid to you in your



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Pictured is a high clearance, self-propelled sprayer especially designed for staked tomatoes, pole beans, etc., that cannot be sprayed with a trailer-type sprayer. This is ideal for greenhouse growers. The machine is available in several models, and this particular model replaced three full-time men using hand guns. It gave thorough coverage



using one-half the chemical, and one man sprayed the same area as the three men in three hours. Standard equipment includes full power-steering, hydraulic folding booms, hydraulic-powered mechanical agitator, and high-pressure piston pump. For more information about the special HY-ROW sprayer and its application to your special crop-spraying problems, write O. W. Kromer, O. W. Kromer Co., 1120 Emerson Ave., N., Minneapolis, Minn.

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PUZZLING BEHAVIOR

(Continued from page 33)

short, the soil wet, and daylength longer. But the variety Autumn Spice does perform well under these conditions.

Tomatoes are as temperamental as corn and they are very sensitive to humidity as well as daylength and temperature. Western varieties, such as the Pearson strains, Early Pak, and J. Moran, seldom do well in the East, and eastern standbys, such as Rutgers, are nearly complete failures in the West.

Varieties may vary greatly in their ability to set fruit under different temperatures. The variety Marglobe needs fairly warm nights if it is going to set fruit. But the varieties Homestead and Manalucie will produce good crops of fruit under conditions when Marglobe would drop its blossoms. However, Marglobe is excellent in production and fruit type if planted on ground with high water table, where it has an abundance of moisture.

Another thing about some tomato varieties—they don't like to overeat. Rutgers and several other tomato varieties show evidence of bunching and crease stem when excessively fertilized in Florida. They form a heavy compact bush with wide, creased stems and dark green foliage. Very little fruit is set under these conditions. Later, if the fertilizer leaches away or is dissipated in other ways, the plants may recover and set fruit. On the other hand, the variety Grothens Globe can be heavily fertilized and not develop these disorders.

Watermelons also react to temperature and soil moisture. The variety Charleston Gray is more subject to blossom-end rot under dry conditions. A disorder known as "white heart" or internal second growth is quite pronounced in some varieties of watermelons. This is caused by wide variations in soil moisture and can also be artificially induced by irrigating after the fruits start to ripen. A new variety, Chris Cross, is somewhat tolerant to fluctuations in moisture and does not show evidence of this disorder as readily as some varieties.

Dry conditions affect the Charleston Gray watermelon. It is more subject to blossom-end rot. New Hampshire Midget will produce melons of good quality and color when grown under northern conditions but will produce melons of poor quality and color when grown in the South.

Some plants develop their own idiosyncrasies. The Goldrush sweetpotato, for example, does well in loamy soils, but has a tendency toward pronounced "veining" in clay type or stiff soils. It also decays rapidly when grown in poorly drained or wet soils.

The Russet Burbank variety of potato

(Continued on page 37)

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AMERICAN VEGETABLE GROWER

PUZZLING BEHAVIOR

(Continued from page 35)

atoes requires a relatively high and uniform soil moisture level in the soil to produce a crop of well-shaped tubers. By contrast, the Russet Sebago variety will yield well and produce well-shaped potatoes even under conditions of limited and fluctuating soil moisture level.

Waltham 29 broccoli is entirely unsuited for a spring crop in the East but makes an excellent fall crop. When planted in the spring, it is leafy and the buds open very quickly. Unseasonably high temperatures during the time of head formation of N. W. Waltham and Waltham 29 seems to increase the number of plants which might be called off-

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type. Greenbud does fairly well as either a spring or fall grown crop.

Varieties of snap beans bearing relatively short pods, such as White Seeded Tendergreen, are more drought tolerant compared to varieties bearing relatively longer pods. Contender snap beans will show a purple pod color under low temperatures and where the beans have been exposed to light conditions.

Yellow Crookneck squash will develop more prominent symptoms of mosaic when grown under cool conditions.

Under certain conditions, some of the late varieties of peppers, such as Yolo Wonder, Keystone, and California Wonders, do not set fruit as readily as varieties such as Pennwonder, King of the North, and most of the hot peppers. This conditions has been explained by an imbalance of fertilizers. With high nitrate conditions, the later varieties tend to go all to plant and do not set fruit as readily as early varieties under the same fertility conditions.

Some sweet corn varieties, notably Golder Cross Bantam, are very susceptible to poor tip fill under dry conditions. The variety North Star under some conditions will grow a fairly large percentage of eight-row ears, and ears that are snaggle-tooth (with the rows mixed and large gaps between rows). Some varieties produce yellow cotyledons if the weather following planting is cold.

What can be done about these fussy plants? The grower can do his part by catering to the eating whims of crops. The plant breeder must—and does—constantly endeavor to breed new varieties which do not have these idiosyncracies.

THE END.

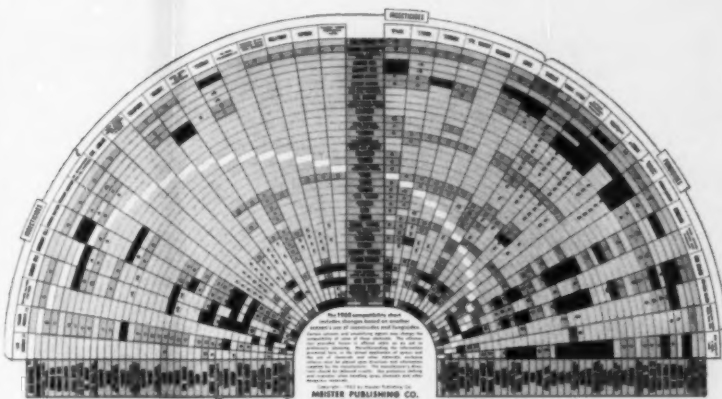
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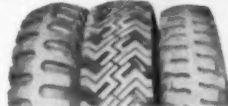
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Taking the Confusion Out of Marketing Orders

AS more and more grower groups organize themselves to take advantage of marketing orders, interest in these devices is bound to grow. Marketing orders will be discussed this month at a good many winter meetings. It is likely that a majority of those who hear and even enter into the discussion will disagree on what marketing orders are, what they mean, and what they can do.

There is a good reason for this. Just as there are many different varieties of vegetables, so there are many different kinds of marketing orders. It is easy to get into a disagreement if you are thinking of the kind that is restricted to raising money for research or promotion and someone else is talking of a marketing order that would restrict the supply which could go to market.

The tendency is to think that all marketing orders are alike. This is not at all true. There are big ones, little ones, broad ones, and narrow ones.

In a recent issue of AMERICAN VEGETABLE GROWER, marketing orders were criticized by one reader who said that withholding supplies to stimulate price will only encourage more production. In the same issue, marketing orders were praised as a means to establish minimum grades and to withhold "junk" produce, which can often break the price.

In considering these arguments, it is necessary to bear in mind that one reader visualizes a considerably more restrictive marketing order than the other. It is important to know that a marketing order is written to accomplish certain specific things; it must be approved by a vote of growers, and it cannot be altered without another vote. Marketing orders at one extreme are simply a means for raising money for research and promotion, and at the other extreme are surplus control regulations involving withholding acres from production or bushel quotas.

Federal marketing orders which are administered by the Secretary of Agriculture were authorized by the Agricultural Marketing Agreement Act of 1937. This act very carefully specifies which agricultural products may be included. The new Agricultural Act of 1961 adds certain commodities and excludes others. Under the new law, only vegetables

for fresh market and asparagus for both fresh market and processing may be included.

The federal law makes marketing agreements possible if growers want them. The usual procedure is for growers of a particular crop in a specified area to apply for an order. After public hearings, it is submitted to a vote by all the growers of the crop in the area covered. A two-thirds majority is necessary by those who vote. The order may be voted out of existence by a majority of the growers who produce at least one-half the product.

Federal marketing orders may not be used to raise money for promotional purposes. They can be used for specifying grade or size of product which may be shipped to market, or to regulate quantity and provide for disposal of a surplus.

State marketing orders and what they may accomplish depend on the wording of the enabling act which makes state marketing orders possible. As might be imagined, the various state laws differ. At this writing, 10 states have passed enabling acts. The first to do this was California, which passed its first enabling legislation in 1933 and now has 32 active state marketing order programs.

California may have two marketing orders setting up different but complementary programs for the same crop.

VEGETABLE CONVENTION



"Ho, Ho! Merry Christmas folks and let old Santa take care of the surplus."

For instance, there is a marketing order for fresh asparagus and one for processing asparagus.

Other states with enabling acts are Arizona, New York, Colorado, Utah, Wisconsin, Pennsylvania, North Carolina, Wyoming, and Washington. New York has a marketing order program for apples which stipulates that all growers must pay a certain amount per bushel into a general fund to be used for promotion and research. It is set up primarily to raise money for promotion and

QUOTE-OF-THE-MONTH

"It was always said of him, that he knew how to keep Christmas well."

Charles Dickens

has no provisions to withhold lower grades or restrict supplies.

Like the federal marketing orders, state orders become law only after growers apply and vote them into existence. Likewise, they may be voted out of existence by the growers concerned. Regulations concerning who must vote—growers, handlers, or both—and majority needed vary from state to state.

Some states have special laws passed by the legislature to establish statewide taxes on specific products to raise money for research or promotion. These states are Alabama, Florida, Michigan, Virginia, Delaware, New Jersey, Idaho, Louisiana, Maine, Minnesota, New York, and Oregon. These are not marketing orders but state laws authorized by vote of the legislature.

Because there are so many different types and kinds, it is easy to see why there is considerable confusion about marketing orders. Depending on whether they are state or federal, orders may be set up to accomplish many different objectives. When you are discussing a marketing order, make sure you know whether it is state or federal and what, specifically, it would do. This would eliminate much confusion.

Coming

- The Dollars and Cents Approach to Portable Plastic Cold Frames
- The Value of Starter Solutions
- Tips on Growing Bedding Plants
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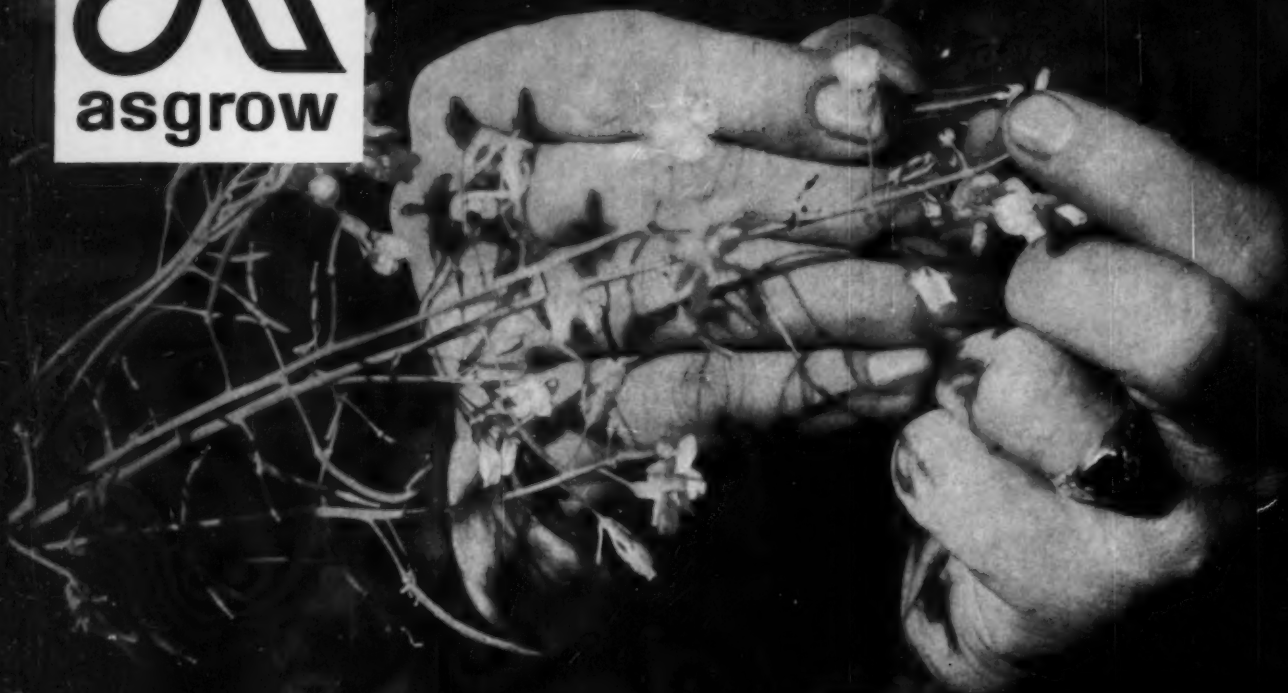
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